

Remarks/Argument

Amendments to the Claims

The Examiner's assistance including his review of proposed claim language is acknowledged and appreciated.

Claims 13 and 14 stand allowed. Claims 6, 7, 19 and 20 are rewritten in independent form while addressing formal issues raised by the Examiner, thereby rendering those claims allowable.

Claims 1-12 and 15-16 stand rejected under 35 U.S.C. §102(b) or 103(a). The rejections are respectfully traversed in view of the amendments to the claims and/or for the following reasons.

In an effort to advance prosecution, independent claims 1, 8 and 15 are amended to clarify that the pairwise combination of hash indices result in an enlarged address space that may be referenced. That is, while each of the index values specify a location within a first address space, the pairwise combination specifies a location within a second, larger address space:

Claim 1 (currently amended) A data dictionary comprising:
an inverse fault-tolerant decoder implemented for an error-correction code configured to transform a data vector into a plurality of predetermined index values, each of said index values specifying a location within a first address space;

combinational logic configured to combine pairs of said index values to form corresponding pairwise combined hash indices, each of said combined hash indices specifying a location within a second address space, said second address space being greater than said first address space; and

data storage configured as a hash table addressable throughout said second address space, said hash table referencing indexed data corresponding to said combined hash indices.

Claim 8 (currently amended) A method of accessing a dictionary comprising the steps of:

transforming a data vector into a plurality of predetermined index values, each of said index values specifying a location within a first address space;

combining pairs of said index values to form corresponding pairwise combined hash indices, each of said combined hash indices specifying a location within a second address space, said second address space being greater than said first address space; and

referencing indexed data stored in a hash table throughout said second address space corresponding to said combined hash indices.

Claim 15 (currently amended) A data dictionary stored on a computer readable media, said data dictionary comprising:

inverse fault-tolerant decoder logic configured to transform a data vector into a plurality of predetermined index values, each of said index values specifying a location within a first address space;

combinational logic configured to combine pairs of said index values to form corresponding pairwise combined hash indices, each of said combined hash indices specifying a location within a second address space, said second address space being greater than said first address space; and

a data storage structure configured as a hash table addressable throughout said second address space, said hash table referencing indexed data corresponding to said combined hash indices.

This feature of the invention is fully described in the specification as originally filed:

...The invention exploits the structure of certain perfect error-correction reverse transformations and the index pairing property of the indices generated to both reduce the number of locations to be searched and **expand the storage interval**, thereby reducing collisions and the number of indices per list.

Paragraph 39, lines 3 – 9, emphasis added.

and

...The invention further employs data word pairing to **extend the hash table size** beyond the limited number of bits directly supported by a particular error-correcting code. For example, the invention concatenates, in lexicographical order, pairs of data words to double the size of the hash key.

Paragraph 40, lines 10 – 13, emphasis added.

The revised claim language reciting this aspect of the invention in terms of address space is fully supported by the specification including the description of “expand[ing] the storage interval”, “extend[ing] the hash table size” and, according to one embodiment, concatenating the indices to “double the size of the hash key.” As one skilled in the art would recognize, extending or expanding a storage interval by increasing the size of an index may be described as increasing an address space as recited by the amended claim language. While the art of record may, in one form or another, process pairs of indices, it fails to pairwise combine the indices per applicant’s invention, particularly as further defined so as to expand an addressable space.

The present amendment to the claims is proper in that the revised language further emphasizes features of the invention argued in the prior response and is consistent with

previously presented claim language improperly rejected. For example, the prior amendment added claims 22, 24 and 26, each requiring

...combine[ing] pairs of said index values by concatenating said index values in lexicographical order to form said corresponding pairwise combined hash indices.

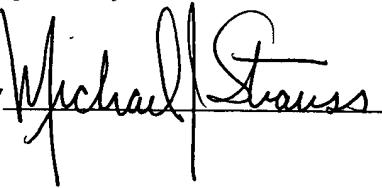
As previously detailed, the prior art fails to describe or suggest the pairwise combination of indices, this distinction previously emphasized by the embodiment of the invention to which previously presented claims 22, 24 and 26 are directed and now further emphasized by the present amendment to the independent claims.

In summary, it is believed that all pending claims are allowable. As the instant amendment rewrites claims in allowable form and adopts amended claim language emphasizing features previously claimed and relied upon to distinguish patentable aspects of the invention over the applied art, entry of this amendment in accordance with 37 CFR §1.116 and favorable reconsideration of the instant application are respectfully requested.

A check for the amount of \$172.00 accompanies this Amendment in payment of the extra claim fee. If any additional fee is due, please charge our Deposit Account No. 06-2375, under Order No. 714.001/10108288 from which the undersigned is authorized to draw.

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Respectfully submitted,

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